

IASPEI Commission for Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²sE) 2025 Annual Report

1. The Establishment of RI²sE

The IASPEI Commission on the **Scientific Expedition of Earthquakes** (the Comm. SEE) was firstly proposed during the 28th IUGG General Assembly Meeting in Berlin in 2023, by Prof. Li Ying and Vice President Prof. Li Li.

Taking the opportunity of the International Symposium Meeting on Deep Earth Exploration and Practice (the DEEP 2024) in Beijing, a panel meeting was held, with the participation of Secretary General Prof. Johannes Schweitzer, Vice President Prof. Li Li, Vice President Prof. Dmitry Storchak, and Former President Prof. Wu Zhongliang.

During the panel meeting, it was proposed that the tentative name of the commission adopt the **Preparatory Commission on the International and Interdisciplinary field Investigation of significant Earthquakes** (the PrepComm I³E).



Fig.1 Panel meeting held before the DEEP 2024

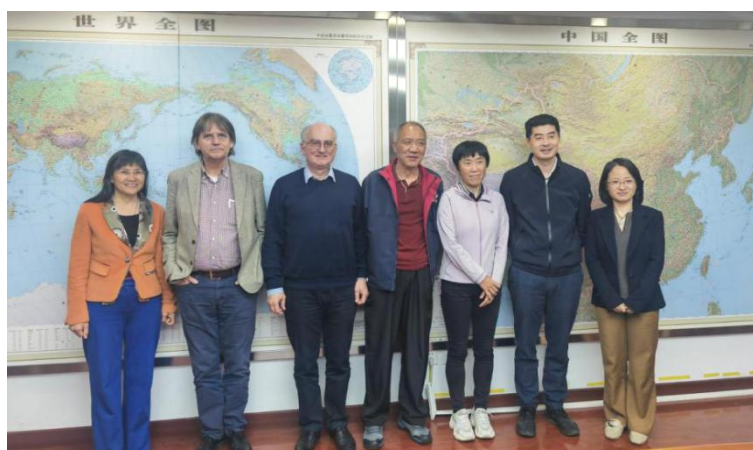


Fig.2 Panel meeting participants. From left to right: Zhang Yongxian, Johannes Schweitzer, Dmitry Storchak, Wu Zhongliang, Li Li, Li Ying and Zhu Fangfang

Interactions with international colleagues were conducted through the 15th Asian Seismological Commission (ASC) Assembly in Antalya and the 4th African Seismological Commission (AfSC) Assembly in Windhoek, respectively. In Windhoek Prof. Li Ying further discussed with President Prof. Michelle Grabelaar and Secretary General Prof. Johanese Schweitzer as well as the leaders of the AfSC, and reported on Scientific Investigation of Large Earthquakes in China, showed China's experience, methodologies, and technical approaches in the scientific investigation of major earthquakes and introduced to the conference the proposal to establish the commission.



Fig.3 Prof. Li Ying introduced the Scientific Investigation of Large Earthquakes in China in ASC 2024, Antalya.



Fig.4 The PrepComm I³ participated in AfSC Assembly in Windhoek, 2025

A discussion meeting was held during the International Symposium on Earthquake Forecasting to Commemorate the 50th Anniversary of the 1975 Haicheng *M*7.3 Earthquake (Shenyang, 2025). Key participants included Profs. Li Ying, Li Li, Wu Zhongliang, Michelle Grabelaar, Mohamed ElGabry, and Walter Mooney. The experts provided critical feedback on the feasibility report for establishing the commission and dedicated significant effort to refining its name. The original tentative name "Preparatory Commission on the International and Interdisciplinary field Investigation of significant Earthquakes" (PrepComm I³E) was revised to "**Rapid Interdisciplinary Investigation of Significant Earthquakes**" (RI²sE).

During the International Symposium on Haicheng *M*7.3 earthquake, Wang Kun, the Administrator of CEA and Michelle Grobbelaar, President of IASPEI, discussed about the matters related to the establishment of the commission.



Fig.5 Administrator of CEA Wang Kun talked with President of IASPEI Michelle Grobbelaar during International Symposium on Haicheng *M*7.3 Earthquake

At the joint IAGA-IASPEI meeting held in Portugal in September 2025, Prof. Li Ying put forward a proposal to the IASPEI Executive Committee recommending the establishment of the IASPEI Commission on the **Rapid Interdisciplinary Investigation of Significant Earthquakes** (RI²sE) as a platform to integrate expertise from earthquake and engineering seismology, geodesy, geology, geo-electromagnetics, geochemistry, hydrology, and social sciences.

The establishment of RI²sE was approved by resolution at the closing of the IASPEI Assembly:

Resolution 3

RESOLUTION ON THE ESTABLISHMENT OF A COMMISSION FOR RAPID INTERDISCIPLINARY INVESTIGATION OF SIGNIFICANT EARTHQUAKES

RECOGNISING the devastating impacts of significant earthquakes worldwide, such as the 2023 Türkiye-Syria earthquakes that resulted in nearly 60,000 fatalities, and other recent deadly events;

ACKNOWLEDGING the critical importance of rapid, coordinated, and interdisciplinary scientific response in the immediate aftermath of major earthquakes to capture perishable data and transient phenomena essential for understanding rupture dynamics, fault properties, and secondary hazards;

IASPEI Proposes to establish the IASPEI Commission on the Rapid Interdisciplinary Investigation of Significant Earthquakes (RI²SE) as a platform to integrate expertise from earthquake and engineering seismology, geodesy, geology, geo-electromagnetics, geochemistry, hydrology, and social sciences.

2. Activities of RI²SE

Following the establishment of the RI²SE, its members, scientific advisors, and secretary were appointed. Based on suggestions from the IASPEI Bureau, IASPEI Resolutions Committee for the 2025 Assembly, Commission members and scientific advisors, the Scope of Commission and three Working Groups were revised and finalized.

Commission held its business meeting on line on February 11, 2026. The meeting was chaired by Prof. Li Ying, Chairman of the Commission. Ms. Zhu Fangfang, Deputy Director of the Department of Science, Technology and International Cooperation, China Earthquake Administration (CEA), attended the meeting. Prof. Johannes Schweitzer, Secretary-General of IASPEI and Scientific Advisor of the Commission, Prof. Mohamed El-Gabry, Member of the Commission and President of the African Seismological Commission (AfSC), and Prof. Prantik Mandal, Member of the Commission, participated online. Prof. Wu Zhongliang, Scientific Advisor of the Commission, Prof. Fang Lihua, Deputy Director of the Institute of Earthquake Forecasting (IEF), CEA, Ms. Tian Wenjun and Mr. Qi Pengju, Secretaries of the Commission, attended the meeting.

In the meeting, Prof. Li Ying expressed gratitude to all the organizations for their support in the establishment of the Commission. Based on the Commission Scope, the meeting deliberated the working promise of the Commission, and discussed the proposal for the session “Recent Significant Earthquakes” in the 2027 IUGG General Assembly, Incheon. The participants also exchanged views on cooperation between RI²SE and the Asian Seismological Commission (ASC), the African Seismological Commission (AfSC), and the Commission on Seismological Observation and Interpretation (CoSOI).

Prof. Wu Zhongliang, Advisor of the Commission, was invited to deliver a presentation on the scientific issues related to the Commission’s Working Groups (WGs). Mr. Qi Pengju, Secretary of the Commission, presented the Commission’s website and Newsletters.



Fig.6 The first business meeting of RI²sE

3. The Newsletters and Website of RI²sE

The Newsletters have been edited since November 2025. As for now, 4 issues (November 2025 to February 2026, each month has one article) were published. The Newsletters mainly featured content on (1)The establishment of Commission, (2)Significant historical earthquakes that occurred in their respective months, (3)The feedback from readers, (4)Updates on the progress of Commission's work and (5)Obituaries for scientists.

The Newsletter is distributed regularly by email, and aim to keep it as simple as possible. Going forward, we welcome suggestions, feedback, and contributions from around the world to help us continuously improve the Newsletter.

For better propagation to the Commission, we have established a website (<https://www.ief.ac.cn/IASPEI-RI2SE/>). The webpage is currently organized into the following sections: Home, IASPEI Resolution, Scope, People, Milestones, Reports, and Newsletters.

4. The Next step of the RI²sE

In 2026, the RI²sE plans to carry out the following work:

- (1) Initiate the relevant work of the Working Groups.
- (2) Attend the Asian Seismological Commission (ASC) General Assembly to be held in Uzbekistan in April 2026, present the work of the Commission, and strengthen cooperation between RI²sE and ASC.
- (3) Host the International Workshop on Earthquake Scientific Investigation to be held in July 2026 in Beijing. Session proposals are welcome, experts and researchers worldwide are invited to participate.
- (4) As aftershock forecasting is an important component of Earthquake Scientific Investigation, the RI²sE as co-host to organize the International Contest on Aftershock Forecasting, to be held from March to November 2026.
- (5) Co-organizer the 12th International Symposium on Tianshan Earthquakes, to be held in Urumchi from September 14 to 18, 2026.
- (6) Compile and issue monthly Newsletter, and continuously update and maintain the Commission website.